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Sebastien Josset

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EXAMINER

SHEPPERD, ERIC W

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/716,465	<b>Applicant(s)</b> JOSSET ET AL.	
	<b>Examiner</b> ERIC W. SHEPPERD	<b>Art Unit</b> 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/20/2003</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Interpretation***

1. Applicant is made aware that claim scope is not limited by claim language (such as “adapted to” or “adapted for”) that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure (see MPEP § 2111.04).

### ***Claim Objections***

2. Claim 9 is objected to because of the following informalities: Claim 9 line 2 “an MAC layer” should be “a MAC Layer”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. As to claim 1, line 4 recites the limitation “said applications” which lacks proper antecedent basis. For purposes of applying prior art the limitation has been construed as “said at least one application”.

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6. As to claim 2, line 2 recites the limitation “the network streams” which lacks proper antecedent basis. For purposes of applying prior art the limitation has been construed as “the data streams”.

7. As to claim 2, lines 2-3 recite the limitation “said applications” which lacks proper antecedent basis. For purposes of applying prior art the limitation has been construed as “said at least one application”.

8. As to claim 3, line 2 recites the limitation “said applications” which lacks proper antecedent basis. For purposes of applying prior art the limitation has been construed as “said at least one application”.

9. As to claim 5, line 2 recites the limitation “as a function of information received” which is vague and indefinite. It is unclear what, if any, limitation is provided to “said extraction means adapted to update said correspondence table” as “information received” by itself has no function, it is data.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5, 7-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgensen (US 6,590,885 B1), in view of Bloebaum (US 6,535,815

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B2).

12. As to claim 1, Jorgensen substantially discloses a system for controlling processes associated with streams of application data for a communication network including communication stations adapted to exchange data streams and connected to communication terminals ("Client" Jorgensen Fig. 2D, item 120d-e *connected to* "Wireless Base Station", item 302 *through* "CPE Subscriber Station", item 294d-e) provided with at least one application ("The RSVP protocol can be used by a host, on behalf of an application, to request a specific QoS from the network for particular data streams or flows." Jorgensen column 45 lines 16-18), which system includes: i) processing means ("Packet Characterization" Jorgensen Fig. 16A, item 1604 *and* "Packet Classification", item 1606 *and* "IP-Flow Presentation", item 1608) adapted, on receiving a message designating an application ("If the IP flow is new, control passes to module 1632 from module 1624 of the packet header identification component 1602" Jorgensen column 69 lines 34-36 *and* Jorgensen Fig. 16A, item 1650 "Provide IP-Flow QoS-Class to Frame Scheduler"), to deliver service data representative of at least one process associated with said designated application ("IP flow presentation component 1608 prepares and presents the IP data flow packets to flow scheduler 634" column 70 lines 19-20), ii) extraction means ("Packet Header Identification" Jorgensen Fig. 16A, item 1602) adapted, on receiving a stream of data sent by a communication terminal ("A stream of packets ... is received at packet header identification component 1602 ... from one or more subscriber stations Jorgensen column 68 lines 42-46), to access the core

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to determine the application associated with said received stream ("Packet header analysis module determines from source application packet header table the type of source application making the IP flow" Jorgensen column 69 lines 5-7) and then to deliver to said processing means a message designating said determined application ("If the IP flow is a new IP flow, then the identification information about the new IP flow is added to table 1626, and control passes from analysis module 1624 to module 1632 of the packet characterization component 1604" Jorgensen column 69 lines 13-17), and iii) control means ("Uplink Flow Scheduler" Jorgensen Fig. 16B, item 634) adapted, on receiving service data delivered by said processing means ("the reservation request block has been ... transmitted to uplink flow scheduler from uplink flow analyzer 632" Jorgensen column 71 lines 25-29), to deliver configuration data adapted to enable at least one process suited to the requirements of the application associated with the received stream of data ("Module 1662 informs MAC uplink subframe scheduler 1666 of the reservation" Jorgensen column 71 lines 31-33) by the communication station ("In one embodiment, uplink flow scheduler 634 is physically located in wireless base station 302" Jorgensen column 70 lines 58-59) to which the terminal from which said stream came is connected ("Client" Jorgensen Fig. 2D, item 120d-e *connected to* "Wireless Base Station", item 302 *through* "CPE Subscriber Station", item 294d-e).

Jorgensen fails to disclose extraction means accessing a core containing information representative of at least one application of the terminal.

Bloebaum describes a method by which a mobile terminal equipped with a GPS receiver can optimize time for estimating its current position based on one or more

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quality of service (QoS) parameters.

With this in mind, Bloebaum discloses extraction means accessing a core containing information representative of at least one application of the terminal ("the positioning application 26 executing in microprocessor 116 could automatically utilize a default QoS value, which the user has previously chosen for a particular application and stored in a data memory" Bloebaum column 5 lines 36-40 *in* "Mobile Terminal" Fig. 2, item 100). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the Bloebaum method of mobile terminal QoS determination with the QoS system of Jorgensen as it would provide greater user control over desired quality of service by allowing a terminal to specify the type of QoS versus QoS being assigned by another system.

13. As to claim 2, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein each communication terminal core includes an interface ("Microprocessor" Bloebaum Fig. 2, item 116 *connected to* "RAM" item 120) for real time control of the data streams associated with said at least one application ("microprocessor determines a desired quality of service (QoS)" Bloebaum column 5 lines 31-33) and said extraction means are adapted, on receiving a data stream ("a positioning application ... request a position update from the mobile terminal" Bloebaum column 5 lines 26-29), to access said interface to determine the application associated with said received stream ("microprocessor could automatically utilize a default QoS value, which the user has previously chosen for a particular application and

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stored in data memory 120” Bloebaum column 5 lines 36-40).

14. As to claim 3, the above combined art substantially discloses the invention as claimed in claim 1, further including memory means adapted to store a table of correspondences between said at least one application and said service data (“IP-Flow QoS Requirement Table” Jorgensen Fig. 16A, item 1634), and wherein said processing means are adapted, on receiving a message designating an application, to access said memory means to determine service data stored in correspondence with said designated application (“in IP flow QoS requirements lookup module 1632 the QoS requirements for the application associated with the IP flow are determined. Module 1632 performs this operation by looking up the application in IP flow QoS requirement table 1634” Jorgensen column 69 lines 38-42).

15. As to claim 4, the above combined art substantially discloses the invention as claimed in claim 3, including wherein said processing means are adapted, in the absence in said memory means of service data stored in correspondence with a designated application, to send a user via a graphical interface of the communication terminal in which said extraction means are installed a message requesting said service data associated with the designated application (“Keypad 122 and display 124 provide a user interface allowing the user to interact with the mobile terminal 100” Bloebaum column 5 lines 21-22 and “microprocessor 116 may, ... prompt the user with a menu of choices related to desired positioning quality of service (QoS)” Bloebaum column 5 lines



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31-33).

16. As to claim 5, the above combined art substantially discloses the invention as claimed as described in claim 3, including wherein said extraction means are adapted to update said correspondence table as a function of information received (“a default QoS value, for which the user has previously chosen for a particular application and stored in data memory” Bloebaum column 5 lines 37-40).

17. As to claim 7, the above combined art substantially discloses the invention as claimed as described in claim 5, including wherein said updating information is delivered by a graphical interface of the communication terminal in which said extraction means are installed (“To make this determination of QoS, microprocessor 116 may, ... prompt the user with a menu of choices related to desired positioning quality of service (QoS)” Bloebaum column 5 lines 31-33).

18. As to claim 8, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein said extraction means are installed in a protocol stack of a communication terminal core (“the information about the IP streams is communicated ‘vertically’ in the protocol stack model from the application layer (i.e. OSI level 7) to the PRIMMA MAC layer (i.e. OSI level 2) for bandwidth reservation and application switching purposes” Jorgensen column 22 lines 20-25).

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19. As to claim 9, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein each communication station has at least one protocol stack arranged in layers, including a MAC layer, and said control means are adapted, on receiving service data, to deliver configuration data for configuring said MAC layer as a function of the requirements associated with a stream to be transmitted or received ("Once the nature and QoS requirements of each IP stream are determined by other portions of the system, this information is communicated to the PRIMMA MAC layer so that the IP flows of each application can be switched to appropriate destinations in a proper priority order" Jorgenson column 22 lines 8-12 *and* "Module 1662 informs MAC uplink subframe scheduler 1666 of the reservation" Jorgensen column 71 lines 31-33).

20. As to claim 10, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein said processing means are adapted to deliver to said control means service data representative of at least one process associated with streams to be received from an application installed in a remote communication terminal ("Provide IP-Flow QoS-Class to Frame Scheduler" Fig. 16A, item 1650 *originating from* "Subscriber Work-Station" Fig. 16A, item 120d).

21. As to claim 12, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein said processing means and said control means are adapted to exchange service messages containing said service data

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in accordance with an exchange protocol chosen from among a proprietary protocol (*not required*), the SNMP ("simple network management protocol (SNMP)" Jorgensen column 47 lines 62-63), the XML protocol (*not required*), and the RSVP ("The present invention supports RSVP by providing ... recognition and support of RSVP messages, including: Path messages, Reservation (Resv), Path teardown messages, Resv teardown messages, Path error messages, Resv error messages, and Confirmation messages" Jorgenson column 43 lines 44-49).

22. As to claim 13, the above combined art substantially discloses the invention as claimed as described in claim 1, including wherein said process is chosen from a group including at least quality of service ("a resource allocation means optimizing end-user quality of service (QoS)" Jorgensen column 3 lines 50-51), encryption (*not required*), authentication (*not required*), session set-up (*not required*), stream prioritization (*not required*), and stream elimination (*not required*).

23. As to claim 14, the above combined art substantially discloses the invention as claimed as described in claim 1, including a communication terminal ("Mobile Terminal" Bloebaum Fig. 2 item 100) including extraction means ("Packet Header Identification" Jorgensen Fig. 16A, item 1602) and processing means ("Packet Characterization" Jorgensen Fig. 16A, item 1604 *and* "Packet Classification", item 1606 *and* "IP-Flow Presentation", item 1608) of a control system as claimed in claim 1 (*motivation to*

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*combine shown above in claim 1).*

24. As to claim 15, the above combined art substantially discloses the invention as claimed as described in claim 1, including a communication terminal including a control system as claimed in claim 1 (*see above claim 1 communication terminal is included as part of system*).

25. As to claim 16, the above combined art substantially discloses the invention as claimed as described in claim 1, including a communication station including control means of a control system as claimed in claim 1 (“In one embodiment, the uplink flow scheduler 634 is located in wireless base station 302” Jorgensen column 70 lines 58-59).

26. As to claim 17, the above combined art substantially discloses the invention as claimed as described in claim 16, including the communication station taking the form of a satellite terminal (“such as, e.g., RF communication, cable RF, and satellite link, to antenna 290d of wireless base station 302” Jorgensen columns 82 lines 1-3).

27. As to claim 18, the above combined art substantially discloses the invention as claimed as described in claim 1, including a communication network including a multiplicity of communication stations ( “Wireless Base Station” Jorgensen Fig. 2A, item 302 and multiple “base stations” Bloebaum Fig. 1, item 12 *obvious to one of ordinary*

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*skill in the art*) including a control means of a system as claimed in claim 1 (“In one embodiment, the uplink flow scheduler 634 is located in wireless base station 302” Jorgensen column 70 lines 58-59) and communication terminals (*Multiple* “Mobile Terminal” Bloebaum Fig. 1 item 100 *shown*) including extraction means “Packet Header Identification” Jorgensen Fig. 16A, item 1602) and process means (“Packet Characterization” Jorgensen Fig. 16A, item 1604 *and* “Packet Classification”, item 1606 *and* “IP-Flow Presentation”, item 1608) of said system (*motivation to combine shown above in claim 1*).

28. As to claim 19, the above combined art substantially discloses the invention as claimed as described in claim 18, including the communication network, chosen in a group including at least satellite networks and wireless networks (“such as, e.g., RF communication, cable RF, and satellite link, to antenna 290d of wireless base station 302” Jorgensen columns 82 lines 1-3).

29. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgensen (US 6,590,885 B1), in view of Bloebaum (US 6,535,815 B2), in view of Reichmeyer et al (US 6,286,038 B1).

30. As to claim 6, the above combined art substantially discloses the invention as claimed as described in claim 5 failing however to include wherein said updating information is contained in a configuration file received by the communication terminal.

Reichmeyer describes a method of remotely configuring a network device by propagating information to the network device from a configuration server.

With this in mind, Reichmeyer discloses wherein said updating information is contained in a configuration file received by the communication terminal ("the central configuration server 26 then propagates configuration information in the form of a ... Domain Configuration File (DCF) ... DCF may include differentiated services and QoS parameters." Reichmeyer columns 10-11 lines 54-2). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to combine the remote configuration method of Reichmeyer with the system of the above combined art as it would speed up configuration by removing the necessity of reconfiguring every terminal locally upon initiation.

31. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgensen (US 6,590,885 B1), in view of Bloebaum (US 6,535,815 B2), in view of Amin et al (US 6,854,014 B1).

32. As to claim 11, the above combined art substantially discloses the invention as claimed as described in claim 1, failing however to include wherein said control means receives an authorization delivered by a central server.

Amin describes a method of a user communicating in an IP centric distributed network that uses servicing to establish network resources for establishment of connections.

With this in mind, Amin discloses wherein said control means receives an authorization delivered by a central server ("The allied Service Application Server sends an Authorization Request message to the AAA server to authorize the service, QoS, and bandwidth requested" Amin column 14 lines 48-50 *and* "When the request is authorized, the Authorization Server sends the Authorization Response to the allied Service Application Server" Amin column 14 lines 56-58). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to combine the authorization of Amin with the system of the above combined art as it provides the advantage of increasing control over a limited amount of resources to ensure that they are allocated as desired.

### ***Conclusion***

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jorgensen (US 6,640,248 B1), Prieto, Jr. et al (US 6,381,228 B1), Yanosy (US 7,069,260 B2), Koistinen et al (US 6,154,778), Vu (US 5,623,601), Belove et al (US 5,644,718), Leclercq et al (US 5,696,902), Kralowetz et al (US 5,768,525), Suarez (US 5,790,789), Rosborough (US 5,838,920) and Koistinen et al (US 6,154,778) are all related to networked QoS.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC W. SHEPPERD whose telephone number is (571)270-5654. The examiner can normally be reached on Monday - Thursday, Alt. Friday, 7:30 AM - 5PM, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571)272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. W. S./  
Examiner, Art Unit 2456

/Ashok B. Patel/  
Primary Examiner, Art Unit 2456